BAY AREA AIR POLLUTION CONTROL DISTRICT 939 Ellis Street San Francisco, California 94109

April 20, 1978

TO:

CHAIRPERSON BONNER AND MEMBERS OF THE TECHNICAL COMMITTEE

FROM:

AIR POLLUTION CONTROL OFFICER

SUBJECT:

PROPOSED LIGHTERING RULE

On Friday, April 14, 1978, the State Air Resources Board Executive Officer held a public hearing to consider adopting modifications to the ARB model rule on lightering. Although we have not yet received official notification, there is every indication that the proposed changes will be adopted.

Enclosed for your review prior to the Technical Committee meeting on April 27 is a copy of the amended ARB rule dated April 14, 1978. Also enclosed is a copy of District Staff comments presented at the public hearing regarding the rule.

Staff will have a written proposal to present for your consideration on April 27. It will contain the basic limitations as specified in the ARB rule, but will incorporate language to take care of the Staff concerns expressed in the presentation to the ARB.

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Attachments

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The Bay Area Air Pollution Control District is aware of the Air Resources Board's desire for control of emissions generated by lightering operations. The District staff has had several meetings to discuss a rule that might be appropriate for the Bay Area. Upon receipt of the final ARB model rule, we will be finalizing a proposed District rule for submittal to our Board of Directors for consideration.

We do have some problem areas with the proposed model rule that we would like to call to your attention at this time. The most pressing is the question of jurisdiction. Our legal counsel has concerns about our ability to enforce regulations for violations that occur outside of District boundaries. Until this matter is legally settled, we may consider alternate ways to cope with this matter.

Another area that concerns us is the role of the Coast Guard in relation to the regulation. Our present thinking is to make compliance with the regulation contingent on prior approval by the Coast Guard of any equipment to be installed as a requirement of the regulation.

Our final concern at this time is the availability of equipment to be installed to monitor organic vapors released to the atmosphere during lightering operations and a method for certifying such equipment. It may be premature to set a compliance date without giving time for development and testing of such instruments. In addition, it could be advantageous

for all Districts if the Air Resources Board were to have a requirement that monitoring instruments be certified by the State prior to installation.

Other than administrative and enforcement problems that arise with any new regulation, this covers our main concerns at this time. Again, after your adoption of the model rule, we will be using it to write a rule which we feel appropriately fits the needs of the Bay Area Air Pollution Control District. Thank you.

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Proposed Model Rule for Controlling Emissions from Lightering Operations

REVISED

(a) Definitions

(1) "California Coastal Waters" means that area between the California

coastline and a line starting at the California-Oregon border at

the Pacific Ocean,

	Thence	to	42.0°N	125.5°W
_	Thence	to	41.0°N	125.5°W
	Thence	to	40.0°N	125.5°W
-	Thence	to	39.0°N	125.0°W
_	Thence	to	38.0 ⁰ N	124.5°W
	Thence	to	37.0°N	123.5°W
	Thence	to	36.0°N	122.5°W
CROS	Thence	to	35.0°N	121.5°W
	Thence	to	34.0°N	120.5°W
	Thence	to	33.0°N	119.5°W
-	Thence	to	32.5°N	118.5°W

and ending at the California-Mexican Border at the Pacific Ocean.*

- (+)--"Eentral-Ealifornia-Eoastal-Waters" means
- (2) "Emission control equipment" means any equipment, including components of the vessel's fuel system, used to reduce or to accomplish a reduction in emissions of air pollutants from a vessel.

^{*} At this time, the model rule is not intended to be applicable in the California

Coastal Waters north of a line extending from 39°N 125°W to the coast at
the Sonoma-Mendocino County line.

- (3) "Lighter" means any vessel which receives organic liquid cargo, except bunker fuel, during a lightering operation.
- (4) "Lightering" means the transfer of organic liquid cargo, except bunker fuel, from one vessel (the "parent" vessel) into another vessel (the "lighter" vessel).
- (5) -- "Northern-Ealifornia-Coastal-Waters" means ----
- (5)(6) "Operation" means any activity of any vessel including, but not limited to, cargo loading and unloading, lightering, ballasting, venting, purging, gas-freeing, tank washing, maneuvering, cruising, hotelling, towing, maintaining, and repairing.
- (6)(7) "Operate" means to perform an operation.
- (7)(8) "Organic liquid" means any petroleum liquid containing carbon and hydrogen including, but not limited to, crude oil and petroleum distillates.
- (8)(9) "Organic vapor" means any vaporized component or components of an organic liquid.
 - (10) -- "Southern-Galifornia-Goastal-Waters"-means-those-waters

 lying-between-the-Galifornia-coastline-and-the-line-described

 below:-

Starting at -34.5 -N-121.0-W-(west-of-Pt:-Arguello);
thence to -34.0 -N-120.5-W-(west-of-San-Miguel-Island);
thence to -33.5 -N-120.0-W-(south-of-Santa-Rosa-Island);
thence to -33.0 -N-119.5-W-(south-of-San-Nicolas-Island);
thence to -32.5 -N-118.5-W-(south-of-San-Clemente-Island);
and ending at the -U.S. Mexican-border-at-the Pacific
Ocean-(south-of-San-Clemente-San

- (9) "Vessel" means any tugboat, tanker, freighter, barge, or any other boat or ship, except those used primarily for recreation.
- (b) Emissions of Sulfur Compounds
 owner or operator of a lighter
 - (1) No_person shall operate or allow the operation within Southern
 (and/or-Gentral-and/or-Northern) California Coastal Waters of

 any lighter unless such vessel burns a fuel having a sulfur

 content of not more than 0.5 percent by weight while in Southern
 (and/or-Gentral-and/or-Northern) California Coastal Waters.
 - (2) The prohibition of subsection (b)(1) shall not apply to a lighter if the emissions of sulfur compounds emitted into the atmosphere from the lighter are not greater than those which would be emitted by using a fuel which complies with subsection (b)(1).
 - (3) Any lighter which is subject to the provisions of subsection

 (b)(1) or (b)(2) shall, for the purpose of determining

 compliance, have installed and in operation by January 1,

 1979 sealed monitoring instruments approved by the Executive

 Officer (or Air Pollution Control Officer) of the District

 which shall continuously detect and record the sulfur

 content of fuel oil burned in the lighter's boilers or

 engines or the sulfur dioxide content of the vessel's

 boiler or engine flue gases whenever such lighter is

 operating within California Coastal Waters. Means shall be

 provided to prevent such detection and recording systems from being

 disconnected or rendered inoperable. Data and information

 recorded by such instruments shall be kept on the vessel

 and such data shall be made available for inspection upon

request by the Executive Officer (or Air Pollution Control

Officer) of the District, or by the Executive Officer of

the Air Resources Board, or by their authorized representatives.

The provisions of subsections (f)(1) and (f)(2) of this

Rule shall not be applicable to this subsection (b)(3).

- (c) Emissions from Loading Organic Liquid into Lighters
 - (1)--Except-for-lightering which occurs within the tong Beach
 or-Los-Angeles-Harbor-breakwater (or other specified bay
 or-harbor),-no-person-shall-load-or-allow the loading-or
 organic-liquid-into-any-lighter-within-Southern-(and/or
 Gentral-and/or-Northern)-California Coastal Waters-from
 March-1,-1978-to-September-1,-1978-unless-the weight-of
 organic-vapors-emitted-during-the-loading-of-each-1,000
 gallons-of-organic-liquid-is-reduced-by-at-least-80-percent
 from-uncontrolled-conditions:--For-the-purposes-of-complying
 with-this-subsection,-the-owner-or-operator-of-a-lighter
 may:
 - (A)--Perform-both-of-the-following operations which; taken
 together;-shall-be-assumed; without demonstration; to
 result-in-an-80-percent-by-weight-reduction-in-organic
 vapor-loading-emissions:
 - (i)--Reduce-the-concentration-of-organic vapors in the eargo-tanks-of-a-lighter by tank washing and gas-freeing-of-said-tanks-outside-Southern (and/or Gentral-and/or-Northern)-California-Coastal Waters so-that-the-average-concentration-of-organic vapors

in-said-earge-tanks-ef-such-lighter does not exceed

0.5-percent-by-volume-immediately-prior to the

commencement-of-lightering-into-said tanks; and

(ii)-Short-load-a-lighter-se-that-the-surface of the

organic-liquid-in-any-loaded-earge-tank-is-at

least-10-feet-below-deck-level:-or-

- (B) -- Employ -any -alternative emission control practices or equipment provided that the owner or operator of -a

 lighter subject te this subsection shall comply with the provisions of subsection (c) (4) of this Rule prior to the use of such alternative practices or equipment -
- Los Angeles Harbor breakwater (or other specified bay or owner or operator of a lighter harbor), no person shall load or allow the loading of organic liquid into any lighter within Southern (and/or January 1, 1979 to October 1, 1980 Northern) California Coastal Waters from September 1, 1978 to July 1, -1930 unless the weight of organic vapors emitted during the loading of each 1,000 gallons of organic liquid is reduced by at least 90 percent from uncontrolled conditions. owner or operator of a lighter
- (2)(3) No_person shall load or allow the loading of organic liquid

 into any lighter within Southern-(and/or-Central-and/or Northern)

 October 1, 1980

 California Coastal Waters after_July-1,-1980 unless the weight

 of organic vapors emitted during the loading of each 1,000

 gallons of organic liquid is reduced by at least 95 percent

 from uncontrolled conditions.
- (3)(4)- The owner or operator of any lighter subject to subsections or (c)(1)(B), (c)(2), or (c)(3) of this Rule shall: demonstrate,

- (A) Demonstrate, prior to the effective dates of such subsections, to the satisfaction of the Executive Officer (or Air Pollution Control Officer) of the District by means of emissions tests, engineering evaluation, or other means of reasonable precision and accuracy that the control practices or equipment selected to achieve compliance will reduce the organic vapor emissions to the extent required by said subsections; and
- (B)--That-there-is-a-reliable-methodology-for-determiningthe-effectiveness-of-such-control-practices-or-equipment: on-a-routine-basis:
- (B) Provide fittings, couplings, apertures, access
 platforms, and/or other equipment and features as required
 by the Executive Officer (or Air Pollution Control Officer)
 of the District necessary to facilitate source testing for
 determining the effectiveness of emission control equipment
 or emission control practices on a routine basis.
- (d) Emissions from Cargo Tanks of Lighters owner or operator of a lighter
 - (1) No person shall perform or allow the performance of any operation, other than loading or unloading or cargo, within Southern (and/or Gentral and/or Northern) California Coastal Waters on any lighter which would result in the release into the atmosphere of organic vapors from the cargo tanks of such vessel.
 - (2) Lighters subject to the provisions of subsection (d)(1) shall, for the purpose of determining compliance, have installed and

January 1, 1979

in operation by September-1,-1978, sealed monitoring instruments approved by the Executive Officer (or Air Pollution Control Officer) of the District which shall detect and record the date, time, and duration of any operation other than cargo loading within Southern -{and/or-Gentral-and/or-Northern} California Coastal Waters that would result in the release into the atmosphere of organic vapors from the vessel's cargo tanks. Means shall be provided to prevent such recording systems from being disconnected or rendered inoperable. Data and information recorded by such instruments shall be kept on the vessel with the vessel's oil record book and such data and record book shall be made available for inspection upon request by the Executive Officer (or Air Pollution Control Officer) of the District, or by the Executive Officer of the Air Resources Board, or by their authorized representatives. The provisions of subsections (f)(1) and (f)(2) of this Rule shall not be applicable to this subsection.

- (3) The prohibitions of this subsection shall not apply to the release of organic vapors into the atmosphere from cargo tank pressure relief valves resulting from diurnal temperature and pressure changes within cargo tanks, provided such valves are properly installed, maintained, and operated.
- (e) Nothing in this Rule shall be construed to:
 - (1) Require any act or omission that would be in violation of any regulation or other requirement of the United States Coast Guard; or
 - (2) Prevent any act or omission that is necessary to secure the

safety of the tanker or other vessels or for saving life at sea (any-one-or-more-of-such-conditions-shall-be-referred to herein-as-Safety-Emergency); provided, however, that this provision is subject to the following conditions:

If a vessel, for reasons set forth above in subsection (e) which could not be reasonably foreseen, does not comply with the requirements of this Rule, a report substantiating the justification for each such instance of non-compliance shall be submitted by the operator of the vessel within 14 days of the occurrence to the Executive Officer (or Air Pollution Control Officer) of the District with a copy to the Executive Officer (or Air Pollution Control Officer) of the District finds that the reason for non-compliance with the Rule was not permissible under the provisions of this subsection (e), such vessel shall be deemed to be in violation of this Rule.

(B) _ If _it _can _bo _roasonably_foreseen_that_a_vessel;__for
roasons_set_forth_above_in_subsection_(e);_will_not_be

able_to_comply_with_a_requirement_of_this_Rule;_an

application_for_an_exemption_from_any_such_requirement

of_this_Rule_shall_be_submitted_to_the_Executive

Officer_of_the_District;_with_a_copy_to_the_Executive

Officer_of_the_Air_Resources_Board;_at_least_30_days

prior_to_any_such_possible_non_compliance;_including;

which_justify_the_possible_non_compliance;_including;

but not-limited-te; any rele-or-regulation which would be violated if the vessel-operated in compliance with such requirement. - Upon-receipt-of-any-such application; the Executive Officer-of-the-District; in consultation with the Executive Officer-of-the-Air-Resources Board; shall determine whether the circumstances justify the possible non-compliance. - The Executive Officer of the District shall notify the party submitting an application of this determination at least 5-days prior to the possible non-compliance. - If the Executive Officer of District finds that any such non-compliance is not permissible under this subsection (e); the vessel shall be deemed to be in violation of this Rule if any such non-compliance occurs.

(f) Compliance Schedule

- (1) Unless otherwise specified in this Rule, vessels which are capable of complying with any subsection of this Rule without the construction or installation of additional emission control equipment shall be in compliance with such subsection of this July 1, 1978.

 Rule by March-1,-1978.
- (2) The owner or operator of a lighter for which construction or installation of emission control equipment is required to comply with any subsection of this Rule shall demonstrate by July 1, 1978,

 A March-1,-1978, or at least 30 days prior to any proposed

operation subject to this Rule, whichever is later, to the

Executive Officer (or Air Pollution Control Officer) of the District and to the Executive Officer of the Air Resources

Board that such construction or installation is necessary.

Such lighter shall comply with every subsection of this

Rule as expeditiously as practicable but in any event no October 1, 1980,

later than duly-1,-1980, and shall fulfill the following

increments of progress: October 1, 1978.

- (A) Prior to June 1,-1978. Submit to the Executive Officer (or Air Pollution Control Officer) of the District 2 final control plan which describes, as a minimum, the steps, including a construction schedule, that will be taken to achieve compliance with the provisions of this Rule. The schedule must show completion of the construction and equipment installation phases of the plan prior to October 1, 1980. August 1, 1980 April-13-1980 and compliance with this Rule by July-13 1980. If the Executive Officer (or Air Pollution Control Officer) of the District finds that the final control plan will not result in compliance as expeditiously as practicable, the subject vessel shall be deemed in violation of this subsection until such time as an acceptable plan is submitted. December 1, 1978.
- (B) Prior to August-13-1978. Negotiate and sign initial contracts for the construction or installation of emission control equipment, or issue orders for the purchase of component parts to accomplish emission control.

August 1, 1980.

- (C) Prior to April-1,-1980. Complete construction or installation of emission control equipment or component parts to accomplish emission control as indicated on the construction schedule submitted with the final control plan.

 October 1, 1980.
- (D) By July 1-, 1980. Be in final compliance with the provisions of this Rule.
- (3) The non-availability of specific emission control equipment or of a specific emission control system or method to be used for the purpose of achieving compliance with any provision of this Rule shall not constitute relief from such provision if other types of emission control equipment, systems, or methods acceptable to the Executive Officer (or Air Pollution Control Officer) of the District are available.
- (4) A requirement to construct or install emission control equipment for the purpose of achieving compliance with any subsection of this Rule shall not constitute relief from the requirement for a lighter to comply with any other subsection of this Rule for which the construction or installation of emission control equipment is not required.
- (5) An extension of the March-1,-1978 compliance date shall not be granted for the elimination of organic vapor emissions caused by ballasting into cargo tanks unless dedication or permanent filling of certain cargo or ballast tanks would reduce the cargo carrying capacity of a lighter by at least 20 percent more than its capacity would be reduced by the construction of fully segregated ballast tanks.

- (6) Any lighter which engages in lightering operations within

 -Southern-(and/or-Central-and/or-Northern) California Coastal
 October 1, 1980,
 Waters after duly-1;-1980,-shall be in full compliance with
 the provisions of this Rule.
- (9)--The-provision-of-subsection-(f)(1) of this Rule shall not be

 applicable-to-subsection-(c)(2) of this Rule and the provision

 of-subsection-(f)(2)-of-this-Rule shall not apply to subsections
 (c)(1)-and-(c)(2)-of-this-Rule.
- not be applicable to subsection (c)(1) of this Rule.

 owner or operator of a lighter or marine terminal
- (h) No person shall load or unload, or allow the loading or unloading
 of organic liquid, except bunker fuel, into or from any lighter
 at any port or berthing facility within the (Name) Air Pollution
 Control District if such lighter has not complied with the
 provisions of this Rule.
- (i) Severability
 - If any portion of this Rule shall be found to be unenforceable, such finding shall have no effect on the enforceability of the remaining portions of the Rule, which shall continue to be in full force and effect. If this Rule is found to be unenforceable in any portion of Southern-(and/or-Central-and/or-Northern) California Coastal Waters, it shall remain in full force and effect in all other portions of Southern-(and/or-Central-and/or-Northern) California Coastal Waters.
- (i) Notification of the intended arrival date of a parent vessel in

 Southern-(and/or-Central-and/or-Northern)- California Coastal Waters

 shall be made to the Executive Officer (or Air Pollution Control

 Officer) of the District at least 4 hours prior to the arrival of

the vessel. Such notification shall include the parent vessel's name, size, quantity of cargo carried, destination, date and approximate time of arrival in Southern-(and/or-Gentral-and/or Northern) California Coastal Waters, and destination of cargo. Upon receipt of such notification the Executive Officer (or Air Pollution Control Officer) of the District may request additional information relating to the pending lightering operation.

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